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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/705,950	11/13/2003	Yogun Ki	2927-0160P	6720

2292 7590 06/19/2006

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EXAMINER
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JIMENEZ, MARC QUEMUEL

ART UNIT	PAPER NUMBER
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3726

DATE MAILED: 06/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/705,950

Applicant(s)

KI ET AL.

Examiner

Marc Jimenez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3-5-04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. **Claims 4, 5 and 7-12** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 recites “said low polar ozone-resistant rubber” which lacks proper antecedent basis.

Claim 5 recites “said low polar ozone-resistant rubber” which lacks proper antecedent basis.

Claims 7-10 recite methods of testing the roller. However, the invention is directed to a roller per se. Therefore, the limitations of claims 7-10 are unclear as to how testing of the roller adds further structural limitations to the roller.

Claim 10 recites “said conductive foamed elastic layer” in line 12 which lacks proper antecedent basis. The limitations of claim 10 are unclear as written. For example, in lines 3-4, the limitation “composition comprising a rubber component, composing a main component of said polymer composition, consisting of a mixture of ethylene-propylene-diene terpolymer (EPDM) and acrylonitrile butadiene rubber (NBR)” is unclear.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. **Claims 1-9 and 15** are rejected under 35 U.S.C. 102(e) as being anticipated by Harada (US6697587).

Harada teaches a conductive roller comprising at least one conductive elastic layer (figure 2), the conductive elastic layer formed of a polymer composition comprising: a main-component polymer not containing chlorine nor bromine and containing polyether or/and a cyan group (col. 6, lines 44-67, “rubber A”) and an anion-containing salt having a fluoro group and a sulfonyl group (col. 5, lines 55-60, “lithium trifluoromethane sulfonate” is a fluoroalkylsulfonic acid salt that contains both sulfonyl and fluoro groups), wherein the anion-containing salt having the fluoro group and the sulfonyl group includes at least one salt selected from among a salt of bisfluoroalkylsulfonylimide, a salt of fluoroalkylsulfonic acid (col. 5, lines 55-60), and a salt of tris (fluoroalkylsulfonyl) methide.

Regarding claim 2, the “rubber A” described in Harada has 20 wt% to 90wt% (col. 9, lines 34-40).

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Regarding claims 3 and 4, the “rubber B” described in Harada is considered a “low polar ozone-resistant rubber” as claimed (see col. 6, lines 44-49). Also, Harada discloses the use of the claimed polymers (col. 5, lines 30-37 and col. 6, lines 50-62).

Regarding claim 5, note that EPDM rubber is used (col. 6, line 48) in the wt% claimed (col. 9, lines 37-38).

Regarding claim 6, note that carbon black is used as a filler (col. 7, line 18).

Regarding claim 7, note that Harada teaches the claimed resistance value (col. 5, lines 39-40).

Regarding claim 9, Harada teaches a hardness not more than 70 degrees (col. 10, lines 14-15).

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 7-9** alternatively rejected under 35 U.S.C. 103(a) as being unpatentable over Harada.

Regarding the physical properties claimed, one of ordinary skill in the art, at the time of the invention, would have found it obvious that a reasonable basis exists to believe that the prior art materials would display the claimed properties because the prior art material has essentially

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the same composition as those claimed. In addition, products of identical chemical composition can not have mutually exclusive properties. A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. *In re Spada*, 911 F.2d 705, 709, 15 USPQ 1655, 1658 (Fed. Cir. 1990). Also, since the PTO cannot perform experiments, the burden is shifted to Applicant to establish an unobvious difference. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

7. **Claims 10-14** are rejected under 35 U.S.C. 103(a) as being unpatentable over Harada in view of Takagi et al. (US6067434).

Harada teaches the invention cited above with the exception of having a chemical foaming agent.

Takagi et al. teach a chemical foaming agent (col. 4, line 5) in combination with EPDM, a molded resin and a conductive material.

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided the invention of Harada with a chemical foaming agent, in light of the teachings of Takagi et al., in order to provide a roller having the desired resistivity as suggested by Takagi et al. at col. 4, line 10.

Regarding the physical properties claimed, one of ordinary skill in the art, at the time of the invention, would have found it obvious that a reasonable basis exists to believe that the prior art materials would display the claimed properties because the prior art material has essentially

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the same composition as those claimed. In addition, products of identical chemical composition can not have mutually exclusive properties. A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. *In re Spada*, 911 F.2d 705, 709, 15 USPQ 1655, 1658 (Fed. Cir. 1990). Also, since the PTO cannot perform experiments, the burden is shifted to Applicant to establish an unobvious difference. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

Regarding the claimed ranges of weight ratio, see col. 9, lines 35-37 of Harada.

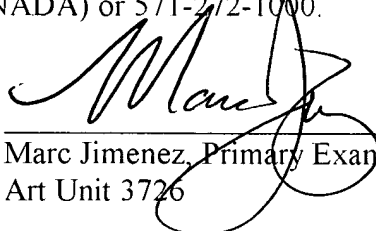
Regarding claims 12-14, the particular type of chemical foaming agent used and in the amounts claimed is considered an obvious matter of design choice to a person of ordinary skill in the art, depending upon the desired characteristics needed of the roller. At the time of the invention, it would have been an obvious matter of design choice to a person of ordinary skill in the art, to have used the claimed foaming agent because applicant has not disclosed that the claimed foaming provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected applicant's invention to perform equally well with either the foaming agent taught by Takagi et al. or the claimed foaming agent because either foaming agent perform the same function of creating a conductive roller equally well. In addition, the use of the claimed foaming agent and in the amounts claimed is well known to a person of ordinary skill in the art, since there are various types of foaming agents used in making conductive rollers.

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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc Jimenez whose telephone number is (571) 272-4530. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bryant can be reached on (571) 272-4526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Marc Jimenez, Primary Examiner  
Art Unit 3726

MJ  
6-8-06